REMARKS

Receipt of the Office Action of September 9, 2005 is gratefully acknowledged.

Claims 10-18 have been examined. Of these, claims 12 and 15-18 are objected to and indicated as containing allowable subject matter; and claims 10, 11, 13 and 14 are rejected. Claim 13 is rejected as indefinite, claim 10 as anticipated by DiMarzio et al. under 35 U.S.C. 102(b), and claims 11 and 14 as unpatentable over DiMarzio et al. in view of Fehrenbach et al. under 35 U.S.C. 103(a).

In reply, claims 12 and 15 have been placed in independent form as new claims 19 and 20, claims 16 and 17 amended to depend from claim 20 and claim 13 placed in independent form as new claim 21 without the indefiniteness noted by the Examiner. Since claim 13 was only rejected as indefinite, claim 21, like claims 19, 20 and 16-18, is allowable. Accordingly, claims 19-21 and 16-18 are now in condition for allowance.

Regarding the rejection of claim 10, it is respectfully traversed.

The transmitter according to claim 10 comprises: a sensor that serves to register a physical quantity and convert such into an electrical quantity; electronics that converts the electrical quantity into a measurement signal and that make the measurement signal available over an electrical current-loop output in the form of a signal current (I) corresponding to the physical quantity; and a pick-up unit having a magnetoresistive element, whose resistance changes as a function of the magnetic flux produced by the signal current.

By contrast, the device according to DiMarzio et al. does not comprise a sensor and a pickup for monitoring a current. Instead, the single and only sensor in the device according to Di Marzio et al. is the magneto-optic Kerr-Effect-sensor.

Other sensors referred to in column 1 lines 27 to 50 of DiMarzio et al. appear to be devices according to the prior art which shall be substituted by the magneto-optic Kerr-Effect Sensor.

As stated already in the abstract of DiMarzio et al. the device is intended to monitor the magnetic field caused by a current of a high voltage power line. High voltage power lines carry currents of some 100 A to 1000 A. This provides for sufficiently strong magnetic fields to be detected by the magneto-optic Kerr-Effect. However this principle is not suitable to monitor a signal current of a sensor. The most prominent signal current has a value between 4 and 20 mA, hence, it is four to five orders of magnitude smaller than the current of a high-voltage power line monitored by the device according to DiMarzio et al. Considering typical material constants for the magneto-optic Kerr effect on the order of 10^-2 min arc/gauss/cm, the magneto-optic Kerr effect caused by a typical signal current would be an angular change of 10^-5 min arc. It is not feasible to detect such an angular change in an instrument which must be sold for competitive market prices.

In conclusion, DiMarzio et al. does not suggest a transmitter liek that of claim 10.

As to Fehrenbach et al., its effective effective date as a reference is August 12, 2003 which is subsequent to the filing date of the present application. It cannot, therefore, be applied as a reference against the present invention.

Replacement sheets for Figs. 1 and 2 are being submitted herewith.

Reconsideration and reexamination are respectfully requested and claims 10-11, 14 and 16-21 allowed.

Respectfully submitted,

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